

Senior Systems Engineer

Position summary

The Senior Systems Engineer will report to the Head of Engineering and work within a growing engineering team to develop the design of the first-of-a-kind FLEX nuclear reactor, a molten salt reactor (MSR) that MoltexFLEX is developing in the UK. The role will involve inter-disciplinary engineering in order to specify the systems associated with a fully substantiated design and its associated safety case.

Position: Systems Engineer

Status: Permanent, full time

Location: Birchwood, Warrington, UK

Reports to: Head of Engineering

Apply: Please submit a resume and cover letter to careers@moltexenergy.com and indicate the job title in the subject line.

This is an exciting opportunity to join a company in its design development journey and work in an agile and multi-disciplined team, which is focused on developing advanced nuclear technologies that can make a significant contribution to reducing global CO₂ emissions.

Responsibilities

The successful candidate will be responsible for overseeing that the FLEX reactor design fully meets its functional and non-functional requirements, through supporting the development and upkeep of a systems engineering strategy. This will involve requirements mapping, requirements traceability reporting, creating verification and validation plans, qualification plans, and test and acceptance documentation. The candidate will apply model-based systems engineering (MBSE) thinking to solve real design challenges, and integrate and maximize the performance of MBSE in project life cycles, from initiation to closeout.

The role will initially involve working closely with external consultants to develop MoltexFLEX's systems engineering strategy, developing this into an automated set of system engineering tools that inform the technology and safety case. While the focus of this role is on systems engineering, it will also require a good understanding of the broader nuclear sector and other engineering and scientific disciplines.

The role will include:

- Developing and implementing the MoltexFLEX systems engineering strategy
- Ensuring the design solution at various maturity levels fully meets its requirements and design intent
- Integrating an appropriate set of systems engineering tools
- Providing system integration within and across disciplines
- Collaborating with a multidisciplinary team of engineers, scientists and operations staff to support the development of the FLEX reactor design
- Promote a culture of systems thinking, communication and practice
- Knowledge transfer to create suitably qualified and experienced MBSE engineers
- Leading third-party support on MBSE
- Presenting MBSE and the MoltexFLEX systems engineering strategy to a variety of stakeholders, including regulatory bodies

Qualifications & experience

- A degree in MBSE and/or relevant supporting industry experience
- A solid foundation in systems modelling and control



- Knowledge of intelligent system design
- Chartered engineer status would be an asset
- Proficiency in the use of engineering design and modelling tools including CAD an asset

Skills & personality

- A problem-solver who is driven to find simple solutions and not to over-complicate development and design work
- Excellent verbal and written communication and presentation skills
- Ability to collaborate with team members and reach consensus on a way forward

What Moltex offers

Moltex offers the opportunity to provide nuclear engineering expertise within a diverse and growing team of engineering, safety case, and scientific professionals collectively working towards the delivery of a first-of-a-kind MSR. For those on board, it is going to be a challenging but rewarding journey.

Other benefits include:

- Learning and development resources
- Excellent growth opportunities
- 25 days annual leave
- 8 statutory holidays
- Company pension scheme with options
- Free, secure onsite parking
- Close to travel networks and within walking distance of Birchwood station

Moltex is an equal opportunity employer. Moltex prides itself in having a team that promotes diversity, inclusion, leadership, mindfulness, high initiative, energy, and passion.